

Amendments to the Claims

1. (Currently amended) A polypeptide ~~obtained by cleaving DANCE with a DANCE-specific protease~~, which consists of an substantially the same amino acid sequence having 90% or more amino acid sequence identity to an as the amino acid sequence shown by SEQ ID NO:6, and has one or more activity selected from the group consisting of integrin-binding activity and homo-complex formation activity.

2. (Currently amended) A polypeptide of claim 1, which is a polypeptide of any of the following (a) - (c):

(a) a polypeptide consisting of the an amino acid sequence shown by SEQ ID NO:6;

(b) a polypeptide consisting of an amino acid sequence shown by SEQ ID NO: 10; or

(c) a polypeptide consisting of an amino acid sequence shown by SEQ ID NO: 14.

3. (Currently amended) A polynucleotide ~~having~~ consisting of a nucleotide sequence that encodes the polypeptide of claim 1.

4. (Currently amended) A polynucleotide of claim 3, which is a polynucleotide of any of the following (a) - (c):

(a) a polynucleotide consisting of the a nucleotide sequence shown by SEQ ID NO:5;

(b) a polynucleotide consisting of a nucleotide sequence shown by SEQ ID NO: 9; or

(c) a polynucleotide consisting of a nucleotide sequence shown by SEQ ID NO: 13.

5. (Currently amended) A polypeptide ~~obtained by cleaving DANCE with a DANCE-specific protease~~, which consists of an substantially the same amino acid sequence having 90% or more amino acid sequence identity to an as the amino acid sequence shown by SEQ ID NO:8, and has one or more activity selected from the group consisting of lysyl oxidase-binding activity, lysyl oxidase-like-1-binding activity and LTBP2-binding activity.

6. (Currently amended) A polypeptide of claim 5, which is a polypeptide of any of the following (a) - (c):

- (a) a polypeptide consisting of ~~an~~ the amino acid sequence shown by SEQ ID NO:8;
- (b) a polypeptide consisting of an amino acid sequence shown by SEQ ID NO: 12; or
- (c) a polypeptide consisting of an amino acid sequence shown by SEQ ID NO: 16.

7. (Currently amended) A polynucleotide ~~having~~ consisting of a nucleotide sequence that encodes the polypeptide of claim 5.

8. (Currently amended) A polynucleotide of claim 7, which is a polynucleotide of any of the following (a) - (c):

- (a) a polynucleotide consisting of ~~the~~ a nucleotide sequence shown by SEQ ID NO:7;
- (b) a polynucleotide consisting of a nucleotide sequence shown by SEQ ID NO: 11; or
- (c) a polynucleotide consisting of a nucleotide sequence shown by SEQ ID NO: 15.

9. (Original) A method of cleaving DANCE, which comprises contacting DANCE with a DANCE-specific protease.

10. (Currently amended) An antibody having specific affinity for the polypeptide of claim 1 ~~or~~ 2.

11. (Currently amended) A monoclonal antibody having specific affinity for the polypeptide of claim 5 ~~or~~ 6.

12. (Currently amended) A method of determining an amount of DANCE cleaved, comprising measuring the amount of DANCE cleaved in a biological sample from an animal.

13. (Currently amended) A reagent for determining an ~~kit for measuring the~~ amount of DANCE cleaved, which comprises an anti-DANCE antibody.

14. (Original) A DANCE mutant incorporating an amino acid mutation in the DANCE cleavage site with a DANCE-specific protease so that the mutant exhibits resistance to the protease.

15. (Currently amended) A polynucleotide consisting of, or comprising ~~having~~ a nucleotide sequence that encodes the DANCE mutant polypeptide of claim 14.

16. (Currently amended) A DANCE complex comprising at least two DANCEs, wherein the DANCE is normal DANCE or the DANCE mutant of claim 14.

17. (Original) The complex of claim 16 which comprises at least two kinds of DANCE which are distinguishable forms.

18. (Currently amended) The complex of claim 16 ~~or 17~~, which further comprises lysyl oxidase and/or LTBP2.

19. (Currently amended) A DANCE complex comprising at least one DANCE and ~~lysyl oxidase and/or LTBP2~~, wherein the DANCE is normal DANCE or the DANCE mutant of claim 14.

20. (Currently amended) A method of preparing a DANCE complex comprising at least two DANCEs, which comprises contacting at least two DANCEs to form a complex, wherein the DANCE is normal DANCE or the DANCE mutant of claim 14.

21. (Currently amended) A method of preparing a DANCE complex comprising at least one DANCE and ~~lysyl oxidase and/or LTBP2~~, which comprises contacting at least one DANCE with ~~lysyl oxidase and/or LTBP2~~ to form a complex, wherein the DANCE is normal DANCE or the DANCE mutant of claim 14.

22. (Currently amended) A screening method for a substance capable of regulating the activity of a DANCE-specific protease, which comprises the following steps (a) - (d): ~~(a), (b) and (c):~~
(a) contacting a test substance with the DANCE-specific protease;
(b) measuring the activity of the DANCE-specific protease resulting from the step (a) above;
~~and (c) comparing the activity with an activity of a DANCE-specific protease obtained without~~
contacting the test substance;

~~(e)~~ (d) selecting a test substance that regulates the activity of the DANCE-specific protease on the basis of the results of the comparison in (c) ~~(b)~~ above.

23. (Original) The method of claim 22 which is a method for identifying a regulator of the formation of elastic fibers.

24. (Currently amended) A screening method for a substance capable of regulating the activity of a DANCE-specific protease, which comprises the following steps (a) - (d): ~~(a), (b) and (e)~~:

(a) administering a test substance to ~~an~~ a non-human animal;

(b) measuring the activity of the DANCE-specific protease resulting from the step (a) above; ~~and~~

(c) comparing the activity with an activity of a DANCE-specific protease obtained without administering the test substance;

~~(e)~~ (d) selecting a test substance that regulates the activity of the DANCE-specific protease on the basis of the results of the comparison in (c) ~~(b)~~ above.

25. (Currently amended) A screening method for a substance capable of regulating the formation of a DANCE complex comprising at least two DANCES, which comprises the following steps (a) - (d): ~~(a), (b) and (e)~~:

(a) contacting at least two DANCES in the presence of a test substance;

(b) measuring the amount of the DANCE complex resulting from the step (a) above; ~~and~~

(c) comparing the amount with the amount of the DANCE complex obtained in the absence of the test substance;

~~(e)~~ (d) selecting a test substance that regulates the formation of the DANCE complex on the basis of the results of the comparison in (c) ~~(b)~~ above,

wherein the DANCE is normal DANCE or the DANCE mutant of claim 14.

26. (Original) The method of claim 25 wherein at least two kinds of DANCE which are distinguishable forms are used.

27. (Currently amended) A screening method for a substance capable of regulating the formation of a DANCE complex comprising at least one DANCE and ~~lysyl oxidase and/or~~ LTBP2, which comprises the following steps (a) - (d): ~~(a), (b) and (c)~~:

(a) contacting at least one DANCE with ~~lysyl oxidase and/or~~ LTBP2 in the presence of a test substance;

(b) measuring the amount of the DANCE complex resulting from the step (a) above; ~~and~~

(c) comparing the amount with the amount of the DANCE complex obtained in the absence of the test substance;

~~(e)-(d)~~ selecting a test substance that regulates the formation of the DANCE complex on the basis of the results of the comparison in (c) ~~(b)~~ above,

wherein the DANCE is normal DANCE or the DANCE mutant of claim 14.

28. (Cancelled)

29. (Original) A screening method for a DANCE-specific protease with DANCE cleavage activity as the index.

30-32. (Cancelled)

33. (Currently amended) A kit comprising the following (a) and (b):

(a) DANCE or the DANCE mutant of claim 14, or an expression vector thereof ~~a polynucleotide having a nucleotide sequence that encodes DANCE;~~

(b) at least one of the following components (i) to (iv): ~~(vi)~~;

(i) DANCE which is a distinguishable form from the DANCE (a);

(ii) an expression vector of DANCE ~~a polynucleotide having a nucleotide sequence that encodes DANCE~~ which is a distinguishable form from the DANCE (a);

(iii) ~~lysyl oxidase;~~

~~(iv) a polynucleotide having a nucleotide sequence that encodes lysyl oxidase;~~

~~(v) LTBP2;~~

~~(vi) a polynucleotide having a nucleotide sequence that encodes LTBP2~~

(iv) LTBP2 expression vector.

34. (Original) A method of identifying a cell expressing a DANCE-specific protease, which comprises the following steps (a) to (b):

- (a) contacting DANCE with a certain animal cell;
- (b) determining whether or not the DANCE is cleaved.

35. (New) The polypeptide of claim 1, which is a polypeptide derived from human or mouse.

36. (New) The polynucleotide of claim 3, which is a polynucleotide derived from human or mouse.

37. (New) The polypeptide of claim 5, which is a polypeptide derived from human or mouse.

38. (New) The polynucleotide of claim 7, which is a polynucleotide derived from human or mouse.

39. (New) The method of claim 9, wherein DANCE is contacted with DANCE-specific protease in culture medium comprising a cell expressing DANCE-specific protease, or in a fraction from the medium, which has an activity of cleaving DANCE.

40. (New) An expression vector comprising the polynucleotide of claim 15 and a promoter operably linked thereto.

41. (New) A cell transformed with the expression vector of claim 40.

42. (New) A pharmaceutical composition comprising the DANCE mutant of claim 14 or the expression vector of claim 40, and a pharmaceutically acceptable carrier.

43. (New) The antibody of claim 10, which is a monoclonal antibody.

44. (New) A hybridoma producing the monoclonal antibody of claim 11.

45. (New) A hybridoma producing the monoclonal antibody of claim 43.

46. (New) A hybridoma producing the monoclonal antibody of claim 45.